



Akram Osman

Project Manager || Project Engineer || Product Engineer

Dammam, Saudi Arabia • +966569768504
eng.ao.mubarak@gmail.com
www.linkedin.com/in/ao-mubarak

Personal Details:

Date of birth: 14/05/1990 ▪ Place of birth: Sudan
▪ Nationality: Sudan

Decisive and resourceful professional with extensive experience in overseeing electrical engineering projects. Solid technical acumen, adept in budgets & baseline development, resource allocation, time overruns, and quality compliance to ensure satisfactory project execution. Current in automation and process control techniques; able to direct teams in all phases of control systems lifecycle. Seasoned leader with refined collaboration talents, partnering knowledgeably with multifunctional teams, clients, stakeholders, and management. Excellent communication and interpersonal skills, proven success delivering results aligned with critical business needs and improvements. Strong knowledge of Microsoft Office Suites such as MS Project, Word, Excel, and PowerPoint.

Areas of Expertise

- ◆ Technical Project Management
- ◆ Process Improvement
- ◆ Process Automation
- ◆ Reporting
- ◆ Data Analytics
- ◆ Team Building
- ◆ Agile Methodologies
- ◆ Requirements analysis
- ◆ Maintenance & Troubleshooting
- ◆ Earned Value Management
- ◆ Problem-solving
- ◆ Design thinking
- ◆ Research

Technical Skills

- ◆ Microsoft Project
- ◆ AutoCAD
- ◆ Programmable Logic Controller
- ◆ LabVIEW & Multisim
- ◆ Machine Learning & AI
- ◆ System Level Design
- ◆ Internet of Things IoT
- ◆ C Programming
- ◆ MATLAB
- ◆ Microcontroller Programming
- ◆ Modelling & Simulation
- ◆ Business Process Modelling
- ◆ Altium-16

Accomplishments

- ◆ Awarded for the best technical paper at the 2022 ICEEICT, "Digital Twin Enabled Industry 4.0 Predictive Maintenance Under Reliability-Centered Strategy" published in IEEE.
- ◆ Standardised end-to-end project management workflow by improving process efficiency by 75%.
- ◆ Executed reverse engineering project for major parts to reduce cost of spare parts by 80%.
- ◆ Successfully completed two projects topic (Industry 4.0, Condition Monitoring) in Malaysia for AT&T and also published these peer-reviewed works on IEEE & ASME respectively.

Professional Experience

Advanced Manufacturing for Metal and Glass AMG, Saudi Arabia
Project Manager

2022 - Present

Plan and organise production schedules. Analyse project's resource needs and manage inventory of raw materials and finished goods, as well as order new supplies as needed. Ensure that all production activities are completed on schedule and within budget constraints. Define quality control standards and ensure that all production activities are carried out in a safe and efficient manner. Organise routine repair and maintenance of production equipment. Coordinate with buyers, marketing, and sales personnel.

- ◆ Supervised and managed junior staff and arranged relevant training courses.

GIAD Industrial Group, Sudan

2017 – 2022

Project Manager

2019 – 2022

Oversaw project's assigned resources from project initiation to completion through hands-on interaction and documented tasks. Managed team to complete projects on time and within budget, while maintaining a high level of quality in workmanship. Identified cost-effective initiatives to meet expense expectations, and project completion success. Extracted and verified technical specifications from documents throughout FEED stage such as PFD, P&ID, specifications, safety, and location plans. Developed automated control for industries including food, submersible pumps, filling machines, flour mills, traffic lights, and industrial robots, including class 1 hazardous location integration. Reviewed and approved assembly CAD drawings, specifications sheets, engineering procedures, purchase plans, O&M guides, and FAT.

- ◆ Collaborated with cross-functional teammates in implementation of EFQM-ISO9001 in GIAD.
- ◆ Researched, developed, and deployed AI-based health management system for double-acting compressor.
- ◆ Conducted internal training courses in AI, (Feature Engineering), MCU, PLC, MSA emulators, modelling, simulation, PMIS, and wiring diagrams.
- ◆ Leveraged skills in designing and validating A&C system to support cost and quality improvements.
- ◆ Gained experience in business process modelling, requirements solicitation, and communication planning.

Project Engineer

2017 – 2019

Developed project scope documents to define objectives and deliverables for each project. Mapped business requirements and clients' needs for technical solutions. Strengthened internal communication strategies and success by establishing an interactive project environment. Attained zero incidents through strict adherence to safety measures, and close follow-up and motivated teammates to commit to applied measures. Mentored (Classic Control, MATLAB & Modelling, and Micro-controller & Embedded Systems).

- ◆ Specified, designed, and installed low voltage systems, Motors drives (AC&DC), switchgear, PLC, and networks.
- ◆ Maintained and troubleshoot electrical equipment including AC and DC motors, motor drives, water pumps, and filling machines.
- ◆ Reduced rework, scrap, and yields, which allowed for significant cost savings through process improvement projects.
- ◆ Implemented reliability-centred-maintenance strategy to improve cost of maintenance and downtime of synchronous motor pilot project.

Al-Zarqaa Engineering Complex, Sudan

2015 – 2017

Electrical Engineer

Guided walkthrough with project stakeholders to establish goals and deadlines for the project team. Provided technical support for electrical integrity projects focused on risk-based inspection, equipment condition assessment, ensuring compliance, and cost optimization. Developed proposals, specifications, quotations, and procurement orders for control elements including electrical machines, protection devices, motor drives, valves PLCs, VFDs, and communication modules. Rendered electrical schematics to customer voice for electrical control panels using AutoCAD. Designed, simulated, and implemented analogue signal conditioning circuit using Pspice.

- ◆ Knowledge of industrial communication protocols like Profibus, UART/USART RS232, I2C, CAN, and Modbus RS485.
- ◆ Steered efforts in upgrading old analogue concrete compression test bed into digital instrument for major construction consultant.

- ◆ Gained experience with IGBT, loss modelling, simulation, and qualification testing for AC&DC drives.
- ◆ Excellent PCB design, layout, schematic capture, and spacing considerations skills using Altium-16 and Proteus ISIS.

Freelance

2013 - 2015

Electrical Engineer (Low Voltage Networks Design)

Designed, maintained, implemented, and improved electrical instruments, facilities, components, equipment products, or systems for industrial, commercial, or domestic purposes. Used AutoCAD to execute wide range of engineering tasks. Ensured that installation and operations conform to standards and customer requirements by preparing electrical systems specifications and technical drawings. Supervised or organised installation, construction, maintenance, documentation, support, and testing activities to ensure compliance with specifications, codes, or client requirements.

- ◆ Specified, designed, and installed low voltage systems (lighting, cables, grounding grids, motors drives (AC&DC), layouts, networks, CCTV cameras, etc).

Education & Credentials

Ph.D. in Advanced Manufacturing Process & Design

University Malaysia Pahang, Malaysia, (Expected 2024)

Master of Science in Telecommunication Engineering, 2017

Sudan University of Science and Technology, Sudan

Bachelor of Science in Electrical Engineering, 2013

Alzaiem Alazhari University, Sudan

Training & Certifications

Project Management Professional - PMP® | Dec 2018

International General Certificate on Occupational Safety and health - IGCOSH | NEBOSH | Mar 2022

PLC for Advanced Automation | Central Institute of Tool Design - India | Jan 2017

Six Sigma: Green Belt | Sep 2022

Deep Learning Specialization | deeplearning.AI | Aug 2020

Understanding Business | Aug 2022

Requirements Elicitation for Business Analysts | Aug 2022

Business Analysis Foundations: Business Process Modelling | Aug 2022

Executive Leadership | Sep 2022

Primavera P6 Professional Project Management | Sep 2018

Advanced MS. Excel | Nov 2017

Report Writing | Nov 2015 Course_3

Publications

- ◆ Machine Health Management System Using Moving Average Feature with Bidirectional Long-Short Term Memory, <https://doi.org/10.1115/1.4054690>
- ◆ Digital Twin Enabled Industry 4.0 Predictive Maintenance Under Reliability-Centered Strategy, [10.1109/ICEEICT53079.2022.9768590](https://doi.org/10.1109/ICEEICT53079.2022.9768590)